L4 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1980:511839 CAPLUS
DOCUMENT NUMBER: 93:111839
TITLE: Aminoaciduria in chronic renal failure - its relationship to vitamin D and parathyroid status
AUTHOR(S): Phillips, Malcolm E.; Havard, Jayne; Otterud, Brith
CORPORATE SOURCE: Med. Sch., Charing Cross Hosp., London, W6 8RF, UK
SOURCE: American Journal of Clinical Nutrition (**1980**), 33(7), 1541-5
CODEN: AJCNAC; ISSN: 0002-9165
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fractional clearances of amino acids in 24 patients with chronic renal failure indicated that aminoaciduria is common and often severe. Eleven studies were carried out in 10 patients with stable renal failure before and during treatment with different metabolites of vitamin D. Sequential measurements of fractional clearance of amino acids, plasma **24-hydroxyvitamin D**, and serum parathyroid hormone were made. All patients initially had hyperaminoaciduria, secondary **hyperparathyroidism**, and osteomalacia. Treatment with 1,25-dihydroxycholecalciferol (1,25 (OH)2D3) or 1α-hydroxycholecalciferol improved amino acid reabsorption irresp. of the initial degree of aminoaciduria. Cholecalciferol or 25-hydroxycholecalciferol (25(OH)D3) improved amino acid transport in patients with initially mild hyperaminoaciduria, but not in patients with severe hyperaminoaciduria. Reduction in aminoaciduria during treatment with 25(OH)D3 may have depended on a variable ability to synthesize 1,25(OH)2D3. Changes in amino acid transport did not correlate with changes in serum parathyroid hormone. Defective amino acid reabsorption in patients with chronic renal failure may be due, at least in part, to a deficiency of 1,25(OH)2D3.

L4 ANSWER 2 OF 23 MEDLINE on STN
ACCESSION NUMBER: 96345590 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8709404
TITLE: Elevated parathyroid hormone-related peptide associated with lactation and **bone** density loss.
AUTHOR: Sowers M F; Hollis B W; Shapiro B; Randolph J; Janney C A; Zhang D; Schork A; Crutchfield M; Stanczyk F; Russell-Aulet M
CORPORATE SOURCE: Department of Epidemiology, University of Michigan, Ann Arbor, USA.
CONTRACT NUMBER: R29 AR39651 (NIAMS)
R01 AR41310 (NIAMS)
SOURCE: JAMA : journal of the American Medical Association, **(1996 Aug 21)** 276 (7) 549-54.
Journal code: 7501160. ISSN: 0098-7484.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals; Space Life Sciences
ENTRY MONTH: 199609
ENTRY DATE: Entered STN: 19960919
Last Updated on STN: 19960919
Entered Medline: 19960912
AB OBJECTIVE: To investigate the hypothesis that parathyroid hormone-related peptide (PRHrP) may be involved with **bone** loss and recovery as a means of providing adequate calcium and phosphate to infants. DESIGN: An 18-month prospective cohort study. SETTING: General community setting with recruitment occurring at birthing education classes. PARTICIPANTS: Volunteer sample of 115 postpartum healthy women aged 20 to 40 years, and 0 or 1 parity prior to parturition with no intent to breast-feed or intent to breast-feed at least 6 months. MAIN OUTCOME MEASURES: Parathyroid hormone-related peptide, prolactin, estradiol, 1,25-dihydroxyvitamin D, **24-hydroxyvitamin D**, femoral **bone** mineral density, and **bone** turnover markers were measured in 115 postpartum women at 2 weeks, 2 months, 4 months, 6 months, 12 months, and

18 months postpartum. Lumbar **bone** mineral density was measured at 2 weeks, 6 months, 12 months, and 18 months postpartum. RESULTS: Elevated PTHrP values were significantly associated (P<.001) with breast-feeding status, elevated prolactin levels, and lower serum estradiol levels, conditions occurring during lactation. Furthermore, elevated PTHrP levels were negatively and significantly associated (P<.01) over time with **bone** mineral density change at both the spine and the femoral neck, even after accounting for prolactin levels, breast-feeding status, return of menstruation, estradiol levels, PTH levels, 1,25-dihydroxyvitamin D levels, dietary calcium intake, physical activity, and body size. CONCLUSION: These data clearly support the hypothesis that PTHrP is an alternative mechanism associated with **bone** loss and recovery during and subsequent to lactation.

L4 ANSWER 3 OF 23 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1993:52983 BIOSIS
DOCUMENT NUMBER: PREV199395029285
TITLE: 1,25-dihydroxyvitamin D-3 in the Atlantic cod: Plasma levels, a plasma binding component, and organ distribution of a high affinity receptor.
AUTHOR(S): Sundell, Kristina [Reprint author]; Bishop, June E.; Bjornsson, Bjorn T.; Norman, Anthony W.
CORPORATE SOURCE: Dep. Zoophysiol., Univ. Goteborg, Medicinaregatan 18, S-413 90 Goteborg, Sweden
SOURCE: Endocrinology, (1992) Vol. 131, No. 5, pp. 2279-2286. CODEN: ENDOAO. ISSN: 0013-7227.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Jan 1993
Last Updated on STN: 14 Jan 1993

AB Physiological studies of the Atlantic cod, Gadus morhua, have suggested a role for the vitamin D-3 system in this marine teleost similar to that in other vertebrates. Accordingly, the present study was carried out to assess the plasma concentrations of vitamins D-3, **24-hydroxyvitamin D**-3 (25 OHD-3), and 1,25-dihydroxyvitamin D-3 (1,25-(OH)-2D-3) in the fish. Additionally, the presence of binding proteins in plasma and target-specific tissue receptors for these vitamin D-3 metabolites was studied in organs normally associated with calcium regulation. Plasma levels of 25-OHD-3 (undetectable to 148 pg/ml; n = 5) were comparatively low (20-30 ng/ml), whereas the levels of vitamin D-3 (apprx 80 ng/ml) and 1,25-(OH)-2D-3 (apprx 50 pg/ml) were comparable to levels reported in higher vertebrates. Cod plasma contained a protein that bound both 25OHD-3 and 1,25-(OH)-2D-3. This plamsa binding protein revealed low affinity for 25OHD-3, did not bind G-actin, and had a sedimentation coefficient of 3.4S. High affinity 1,25-(OH)-2D-3 receptors (K-d, 1.02 +- 0.36 (n = 6), 1.02 +- 0.03 (n = 5), and 0.95 +- 0.51 (n = 5) nM; mean +- SEM) were found in high salt cytosols from intestine, liver, and gills, respectively, and had sedimentation coefficients (3.6-3.8S in 0.3 M KCl sucrose gradients) similar to those in higher vertebrates. No specific 1,25-(OH)-2D-3 binding was found in kidney, ultimobranchial glands, corpuscles of Stannius, or **bone**. The finding of significant quantities of 1,25-(OH)-2D-3 in the plasma, the presence of plasma binding that bind this seco-steroid, and the localization of specific high affinity receptors for this metabolite in calcium regulatory tissues in teleosts are all consistent with a physiological role for the vitamin D-3 system in the calcium regulation of the cod.

L4 ANSWER 4 OF 23 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1990:133565 BIOSIS
DOCUMENT NUMBER: PREV199089072376; BA89:72376
TITLE: 1-ALPHA HYDROXYLATION OF **24 HYDROXYVITAMIN D**-2 REPRESENTS A MINOR PHYSIOLOGICAL PATHWAY FOR THE ACTIVATION OF VITAMIN D-2 IN MAMMALS.
AUTHOR(S): HORST R L [Reprint author]; KOSZEWSKI N J; REINHARDT T A
CORPORATE SOURCE: NATL ANIMAL DISEASE CENTER, AGRIC RES SERVICE, US DEP AGRIC, AMES, IOWA 50010, USA
SOURCE: Biochemistry, (1990) Vol. 29, No. 2, pp. 578-582. CODEN: BICHAW. ISSN: 0006-2960.

DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 13 Mar 1990
Last Updated on STN: 13 Mar 1990

AB C24-Hydroxylation was evaluated as a possible activation pathway for vitamin D2 and vitamin D3. Routine assays showed that 24-hydroxyvitamin D2 and 1,24-dihydroxyvitamin D2 could be detected in rats receiving physiological doses (100 IU/day) of vitamin D2; however, 24-hydroxyvitamin D3 could not be detected in rats receiving similar doses of vitamin D3. In rats, 24-hydroxyvitamin D2 was very similar to 25-hydroxyvitamin D2 at stimulating intestinal calcium transport and **bone** calcium resorption. The biological activity of 24-hydroxyvitamin D2 was eliminated by nephrectomy, suggesting that 24-hydroxyvitamin D2 must undergo 1α-hydroxylation to be active at physiological doses. In vivo experiments suggested that when given individually to vitamin D deficient rats, 24-hydroxyvitamin D2, 25-hydroxyvitamin D2, and 25-hydroxyvitamin D3 were 1α-hydroxylated with the same efficiency. However, when presented simultaneously, 24-hydroxyvitamn D2 was less efficiently 1α-hydroxylated than either 25-hydroxyvitamin D3 or 25-hydroxyvitamin D2. 1,24-Dihydroxyvitamin D2 was also approximately 2-fold less competitive than either 1,25-dihydroxyvitamin D2 or 1,25-dihydroxyvitamin D3 for binding sites on the bovine thymus 1,25-dihydroxyvitamin D receptor. These results demonstrate that 24-hydroxylation followed by 1α-hydroxylation of vitamin D2 represents a minor activation pathway for vitamin D2 but not vitamin D3.

L4 ANSWER 5 OF 23 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1988:283725 BIOSIS
DOCUMENT NUMBER: PREV198886011992; BA86:11992
TITLE: VITAMIN D AND PARATHYROID HORMONE AND **BONE** MINERALIZATION IN ADULTS WITH CYSTIC FIBROSIS.
AUTHOR(S): STEAD R J [Reprint author]; HOULDER S; AGNEW J; THOMAS M; HODSON M E; BATTEN J C; DANDONA P
CORPORATE SOURCE: DEP CHEM PATHOL HUM METAB, ROYAL FREE HOSP AND SCH MED, LONDON NW3 2QG, CAN
SOURCE: Thorax, (1988) Vol. 43, No. 3, pp. 190-194.
CODEN: THORA7. ISSN: 0040-6376.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 16 Jun 1988
Last Updated on STN: 16 Jun 1988

AB Vitamin D and parathyroid hormone concentrations were assessed in 31 adults with cystic fibrosis (mean age, range 17-52 years), in 28 of whom the **bone** mineral index in the forearm was also determined. Serum 25-hydroxyvitamin D was subnormal in eight patients, of whom five were receiving vitamin D supplements in standard doses, 1,25-dihydroxyvitamin D and parathyroid hormone concentrations showed no consistent abnormalities. The **bone** mineral index was lower in patients with cystic fibrosis ($p < 0.02$) than in controls. Five patients with unequivocally reduced **bone** mineral index had a subnormal mean serum 25-hydroxyvitamin D and significantly worse lung function than the other patients. There was a positive correlation between age and **bone** mineral index ($r = 0.68$, $p < 0.001$). Thus a significant proportion of patients with cystic fibrosis living in a temperate climate are at risk of vitamin D deficiency. Osteopenia is common and is probably related to a combination of hypovitaminosis D, delay in puberty, hypo-oestrogenism in women, and reduced physical activity, rather than to secondary **hyperparathyroidism**. Since most patients with deficiency of 25-hydroxyvitamin D were receiving oral supplements, parental vitamin D supplementaton may be appropriate for selected patients who are unable to maintain adequate **24-hydroxyvitamin D** concentrations despite oral vitamin D supplements.

L4 ANSWER 6 OF 23 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1987:417585 BIOSIS
DOCUMENT NUMBER: PREV198784084247; BA84:84247
TITLE: PLACE OF SERUM **24 HYDROXYVITAMIN**

D ASSAYS IN THE INVESTIGATION OF SUSPECTED OSTEOMALACIA.

AUTHOR(S): BURNS J [Reprint author]; PATERSON C R

CORPORATE SOURCE: DEP BIOCHEM MED, NINEWELLS HOSP MED SCH, DUNDEE DD1 9SY, SCOTLAND, UK

SOURCE: Journal of Clinical and Experimental Gerontology, (1987) Vol. 9, No. 2, pp. 161-172.
CODEN: JCEGDK. ISSN: 0192-1193.

DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 9 Oct 1987
Last Updated on STN: 9 Oct 1987

AB Elderly patients with clinical and/or biochemical evidence of osteomalacia, who had serum 25-hydroxyvitamin D (25-OHD) levels less than 20 nmol/l, were given a single depot injection of ergocalciferol. In those who were followed up, clear biochemical responses, confirming the original diagnosis, were observed in 22 of the 28 patients with serum 25-OHD levels of 12.4 nmol/l or less and in three of the eight patients with levels between 12.5 and 19.9 nmol/l. There was a significant correlation between the pre-treatment serum 25-OHD levels and the biochemical response to vitamin D. A low serum 25-OHD level with clinical and biochemical features of osteomalacia should eliminate the need for a **bone** biopsy.

L4 ANSWER 7 OF 23 USPATFULL on STN

ACCESSION NUMBER: 2001:202860 USPATFULL

TITLE: 25-hydroxyvitamin D3 24-hydroylase transgenic rats

INVENTOR(S): Kasuga, Hisao, Osaka, Japan
Isaka, Masami, Osaka, Japan
Matsuoka, Kunio, Osaka, Japan

PATENT ASSIGNEE(S): Takeda Chemical Industries, Inc., Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6316689	B1	20011113	
	WO 9848616		19981105	<--
APPLICATION INFO.:	US 1999-423011		19991027	(9)
	WO 1998-JP1922		19980427	
			19991027	PCT 371 date
			19991027	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-112502	19970430

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Clark, Deborah J. R.
ASSISTANT EXAMINER: Nikodem, David
LEGAL REPRESENTATIVE: Chao, Mark, Ramesh, Elaine M.
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 1956

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The transgenic animal of this invention can be used as an animal model for renal disease, **bone** disease, joint disease, pulmonary disease, hyperlipidemia, arteriosclerosis, cardiac disease, diabetes, obesity, digestive organ disease, infectious disease, allergic disease, endocrine disease, dementia or **cancer**, or complications thereof; and provides a nonhuman transgenic mammal for the unraveling of the mechanisms of said diseases, explorations for the development of therapeutic modalities for the diseases, and the screening of candidate therapeutic drugs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 8 OF 23 USPATFULL on STN

ACCESSION NUMBER: 1998:92020 USPATFULL
TITLE: Methods for preparation and use of 1A,24(S)-dihydroxy vitamin D2
INVENTOR(S): Bishop, Charles W., Verona, WI, United States
Jones, Glenville, Kingston, Canada
Horst, Ronald L., Ames, IA, United States
Koszewski, Nicholas J., Lexington, KY, United States
Knutson, Joyce C., Madison, WI, United States
Penmasta, Raju, Elmhurst, IL, United States
Moriarty, Robert M., Oak Park, IL, United States
Strugnell, Stephen, Kingston, Canada
Reinhardt, Timothy A., Ames, IA, United States
Guo, Liang, Bolingbrook, IL, United States
Singhal, Sanjay K., Morton Grove, IL, United States
Zhao, Lei, Naperville, IL, United States
PATENT ASSIGNEE(S): Bone Care International, Inc., Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5789397		19980804	<--
APPLICATION INFO.:	US 1995-485184		19950607	(8)

RELATED APPLN. INFO.: Division of Ser. No. US 1994-275641, filed on 14 Jul 1994 which is a continuation of Ser. No. US 1992-940246, filed on 28 Aug 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-637867, filed on 8 Jan 1991, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Dees, Jose' G.
ASSISTANT EXAMINER: Pryor, Alton
LEGAL REPRESENTATIVE: Welch, Teresa J.Stroud, Stroud, Willink, Thompson & Howard
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 1152
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB 1α,24(S)-Dihydroxy vitamin D.sub.2 which is useful as an active compound of pharmaceutical compositions for the treatment of disorders of calcium metabolism and for various skin disorders. The invention also includes preparation of synthetic 1α,24(S)-dihydroxy vitamin D.sub.2 starting from ergosterol which is converted in six steps to 24-hydroxyergosterol. 24-Hydroxyergosterol is irradiated and thermally converted to 24-hydroxy vitamin D.sub.2 which is converted in six steps to 1α,24(S)-dihydroxy vitamin D.sub.2. The syntheses also produced novel intermediates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 9 OF 23 USPATFULL on STN
ACCESSION NUMBER: 1998:88833 USPATFULL
TITLE: Methods for preparation and use of 1α,24(S)-dihydroxy vitamin D.sub.2
INVENTOR(S): Bishop, Charles W., Verona, WI, United States
Horst, Ronald L., Ames, IA, United States
Jones, Glenville, Kingston, Canada
Koszewski, Nicholas J., Lexington, KY, United States
Knutson, Joyce C., Madison, WI, United States
Moriarty, Robert M., Oak Park, IL, United States
Reinhardt, Timothy A., Ames, IA, United States
Penmasta, Raju, Elmhurst, IL, United States
Strugnell, Stephen, Kingston, Canada
Guo, Liang, Bolingbrook, IL, United States
Singhal, Sanjay K., Morton Grove, IL, United States
Zhao, Lei, Naperville, IL, United States
PATENT ASSIGNEE(S): Bone Care International, Inc., Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5786348		19980728	<--
APPLICATION INFO.:	US 1995-477930		19950607	(8)

RELATED APPLN. INFO.: Division of Ser. No. US 1994-275641, filed on 14 Jul 1994, now abandoned which is a continuation of Ser. No. US 1992-940246, filed on 28 Aug 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-637867, filed on 8 Jan 1991, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Dees, Jose G.
ASSISTANT EXAMINER: Badio, Barbara
LEGAL REPRESENTATIVE: Welch, Teresa J.Stroud, Stroud, Willink, Thompson & Howard
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 1220
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB 1α,24(S)-Dihydroxy vitamin D.sub.2 which is useful as an active compound of pharmaceutical compositions for the treatment of disorders of calcium metabolism and for various skin disorders. The invention also includes preparation of synthetic 1α,24(S)-dihydroxy vitamin D.sub.2 starting from ergosterol which is converted in six steps to 24-hydroxyergosterol. 24-Hydroxyergosterol is irradiated and thermally converted to 24-hydroxy vitamin D.sub.2 which is converted in six steps to 1α,24(S)-dihydroxy vitamin D.sub.2. The syntheses also produced novel intermediates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 10 OF 23 USPATFULL on STN
ACCESSION NUMBER: 96:31941 USPATFULL
TITLE: Use of vitamin D glycosides, vitamin D orthoester glycosides, vitamin D analog glycosides and vitamin D analog orthoester glycosides for the treatment of **osteoporosis**
INVENTOR(S): Holick, Michael F., 31 Bishop La., Sudbury, MA, United States 01776

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5508392		19960416	<--
APPLICATION INFO.:	US 1994-230867		19940420	(8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1992-997951, filed on 29 Dec 1992, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Griffin, Ronald W.
LEGAL REPRESENTATIVE: Sterne, Kessler, Goldstein & Fox
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 439
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methods for the treatment of prevention of **osteoporosis** by the administration of a vitamin D glycoside or vitamin D orthoester glycoside, or an analog thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 11 OF 23 USPATFULL on STN
ACCESSION NUMBER: 95:110372 USPATFULL
TITLE: Method for the biological preparation of hydroxyvitamin D compounds
INVENTOR(S): Takeda, Koji, Fujisawa, Japan
Kimura, Kiyoshi, Chigasaki, Japan
Okamura, Kazuhiko, Fujisawa, Japan
Okamoto, Rokuro, Fujisawa, Japan

Sasaki, Joji, Omiya, Japan
Adachi, Takashi, Saitama, Japan
Omura, Sadafumi, Ageo, Japan
PATENT ASSIGNEE(S): Mercian Corporation, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5474923		19951212	<--
APPLICATION INFO.:	US 1991-711988		19910607	(7)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1990-157054	19900615
	JP 1990-334283	19901130

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Marx, Irene
LEGAL REPRESENTATIVE: Lorusso & Loud
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
LINE COUNT: 664
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method for introducing hydroxyl groups into vitamin D compound at the 1α- and/or 25-positions in the presence of a cyclodextrin compound by the use of a reaction mixture containing a microorganism being capable of hydroxylating vitamin D compound or a enzyme produced from the microorganism, is disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 12 OF 23 USPATFULL on STN
ACCESSION NUMBER: 89:45296 USPATFULL
TITLE: Stabilized active forms of vitamin D.sub.3
INVENTOR(S): Nemoto, Kaoru, Tokyo, Japan
Igusa, Kazuo, Tokyo, Japan
Ogasawara, Toshichika, Tokyo, Japan
PATENT ASSIGNEE(S): Chugai Seiyaku Kabushiki Kaisha, Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4836957		19890606	<--
APPLICATION INFO.:	US 1986-828596		19860211	(6)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1985-28073	19850214

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lone, Werren B.
LEGAL REPRESENTATIVE: Browdy and Neimark
NUMBER OF CLAIMS: 3
EXEMPLARY CLAIM: 1
LINE COUNT: 274
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A preparation containing an active form of vitamin D.sub.3 which is stabilized by incorporation of an amino acid that is neither one containing a sulfur atom or an acid amino group in its structure, nor an acidic amino acid, nor a salt of a basic amino acid is disclosed. Examples of said amino acids that may be used as stabilizers of the active form of vitamin D.sub.3 include neutral amino acids such as alanine, valine, proline, phenylalanine, tryptophan, leucine, isoleucine, glycine and serine, and basic amino acids such as lysine, arginine and histidine.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 13 OF 23 USPATFULL on STN
ACCESSION NUMBER: 85:28347 USPATFULL

TITLE: Novel vitamin D.sub.3 derivatives and process for producing the same
INVENTOR(S): Takayama, Hiroaki, Tokyo, Japan
Yamada, Sachiko, Tokyo, Japan
Nakayama, Keiko, Tokyo, Japan
Suda, Tatsuo, Tokyo, Japan
PATENT ASSIGNEE(S): Chugai Seiyaku Kabushiki Kaisha, Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4517125		19850514	<--
APPLICATION INFO.:	US 1983-463616		19830203	(6)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Roberts, Elbert L.
LEGAL REPRESENTATIVE: Browdy and Neimark
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 222
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB There are disclosed 6,19-epidioxyvitamin D.sub.3 derivatives which are represented by the formula ##STR1## wherein R.sub.1, R.sub.2 and R.sub.3 are each a hydrogen atom or a hydroxyl group; when R.sub.1 is a hydrogen atom, R.sub.2 represents a hydroxyl group and R.sub.3 is a hydrogen atom or a hydroxyl group; when both R.sub.1 and R.sub.2 represent a hydroxyl group, R.sub.3 is a hydrogen atom or a hydroxyl group; and when R.sub.1 is a hydroxyl group and R.sub.2 is a hydrogen atom, R.sub.3 represents a hydroxyl group. The compounds are highly capable of inducing differentiation of human myeloid leukemia cells with minimum effects on calcium metabolism and are useful as an agent to treat leukemia.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 14 OF 23 USPATFULL on STN
ACCESSION NUMBER: 82:32679 USPATFULL
TITLE: 1-Hydroxylation process
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States
Schnoes, Heinrich K., Madison, WI, United States
Hamer, David E., Hyattsville, MD, United States
Paaren, Herbert E., Madison, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4338250		19820706	<--
APPLICATION INFO.:	US 1981-258125		19810427	(6)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Roberts, Elbert L.
LEGAL REPRESENTATIVE: Bremer, Howard W.
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
LINE COUNT: 440
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A process for preparing biologically active 1α-hydroxyvitamin D compounds from vitamin D compounds by hydroxylation at carbon 1 and subsequent photochemical isomerization, and novel intermediates and products resulting from this process are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 15 OF 23 USPATFULL on STN
ACCESSION NUMBER: 81:28883 USPATFULL
TITLE: Isotopically labeled vitamin D derivatives and processes for preparing same
INVENTOR(S): De Luca, Hector F., Madison, WI, United States
Schnoes, Heinrich K., Madison, WI, United States

Napoli, Joseph L., Dallas, TX, United States
Fivizzani, Mary A., Madison, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4269777		19810526	<--
APPLICATION INFO.:	US 1979-41080		19790521	(6)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Roberts, Elbert L.
LEGAL REPRESENTATIVE: Bremer, Howard W.
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 11,15
LINE COUNT: 1126
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to isotopically labeled vitamin D compounds, including radiolabeled vitamin D compounds of high specific activity, methods for their preparation, and novel intermediates in their synthesis.

The radiolabeled vitamin D compounds are characterized by high specific activity (up to 160 Ci/mmol) with the process providing a facile and convenient method for synthesizing such compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 16 OF 23 USPATFULL on STN
ACCESSION NUMBER: 81:24669 USPATFULL
TITLE: Process for preparing 1-hydroxylated vitamin D compounds from 5,6-trans-vitamin D compounds
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States
Schnoes, Heinrich K., Madison, WI, United States
Hamer, David E., Madison, WI, United States
Paaren, Herbert E., Verona, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4265822		19810505	<--
APPLICATION INFO.:	US 1979-73840		19790910	(6)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Roberts, Elbert L.
LEGAL REPRESENTATIVE: Bremer, Howard W.
NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1
LINE COUNT: 312
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for preparing 1α-hydroxylated vitamin D compounds from 5,6-trans-vitamin D compounds which comprises allylically oxidizing a 5,6-trans-vitamin D compound, subjecting the oxidation product to actinic radiation in the presence of a photosensitizing agent and recovering the 1α-hydroxylated compound.

1α-hydroxylation is recognized as being essential to impart biological activity to vitamin D compounds and their derivatives. The present invention provides an efficient method for maximizing the yield of 1α-hydroxylated vitamin D compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 17 OF 23 USPATFULL on STN
ACCESSION NUMBER: 80:53775 USPATFULL
TITLE: Fluorovitamin D compounds and processes for their preparation
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States

Schnoes, Heinrich K., Madison, WI, United States
Napoli, Jr., Joseph L., Madison, WI, United States
Onisko, Bruce L., Madison, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4230627		19801028	<--
APPLICATION INFO.:	US 1979-64213		19790806 (6)	

RELATED APPLN. INFO.: Division of Ser. No. US 1978-928279, filed on 26 Jul 1978, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Roberts, Elbert L.
LEGAL REPRESENTATIVE: Bremer, Howard W.
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
LINE COUNT: 955
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Fluorine-substituted vitamin D compounds, methods for preparation of such compounds and fluorinated intermediate compounds used in such methods are disclosed. The fluorine-substituted vitamin D compounds are characterized by vitamin D-like activity in stimulating intestinal calcium transport and **bone** mobilization and in promoting the calcification of rachitic **bone**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 18 OF 23 USPATFULL on STN
ACCESSION NUMBER: 80:52478 USPATFULL
TITLE: Fluorovitamin D compounds and processes for their preparation
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States
Schnoes, Heinrich K., Madison, WI, United States
Napoli, Jr., Joseph L., Madison, WI, United States
Onisko, Bruce L., Madison, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4229358		19801021	<--
APPLICATION INFO.:	US 1979-64211		19790803 (6)	

RELATED APPLN. INFO.: Division of Ser. No. US 1978-928279, filed on 26 Jul 1978, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Roberts, Elbert L.
LEGAL REPRESENTATIVE: Bremer, Howard W.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
LINE COUNT: 960
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Fluorine-substituted vitamin D compounds, methods for preparation of such compounds and fluorinated intermediate compounds used in such methods are disclosed. The fluorine-substituted vitamin D compounds are characterized by vitamin D-like activity in stimulating intestinal calcium transport and **bone** mobilization and in promoting the calcification of rachitic **bone**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 19 OF 23 USPATFULL on STN
ACCESSION NUMBER: 80:52477 USPATFULL
TITLE: Fluorovitamin D compounds and processes for their preparation
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States
Schnoes, Heinrich K., Madison, WI, United States

Napoli, Jr., Joseph L., Madison, WI, United States
Onisko, Bruce L., Madison, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4229357		19801021	<--
APPLICATION INFO.:	US 1979-64210		19790806 (6)	

RELATED APPLN. INFO.: Division of Ser. No. US 1978-928279, filed on 26 Jul 1978, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Roberts, Elbert L.
LEGAL REPRESENTATIVE: Bremer, Howard W.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
LINE COUNT: 960
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Fluorine-substituted vitamin D compounds, methods for preparation of such compounds and fluorinated intermediate compounds used in such methods are disclosed. The fluorine-substituted vitamin D compounds are characterized by vitamin D-like activity in stimulating intestinal calcium transport and **bone** mobilization and in promoting the calcification of rachitic **bone**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 20 OF 23 USPATFULL on STN
ACCESSION NUMBER: 80:49749 USPATFULL
TITLE: Fluorovitamin D compounds and processes for their preparation
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States
Schnoes, Heinrich K., Madison, WI, United States
Napoli, Jr., Joseph L., Madison, WI, United States
Onisko, Bruce L., Madison, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4226787		19801007	<--
APPLICATION INFO.:	US 1979-64212		19790806 (6)	

RELATED APPLN. INFO.: Division of Ser. No. US 1978-928279, filed on 26 Jul 1978, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Roberts, Elbert L.
LEGAL REPRESENTATIVE: Bremer, Howard W.
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 942
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Fluorine-substituted vitamin D compounds, methods for preparation of such compounds and fluorinated intermediate compounds used in such methods are disclosed. The fluorine-substituted vitamin D compounds are characterized by vitamin D-like activity in stimulating intestinal calcium transport and **bone** mobilization and in promoting the calcification of rachitic **bone**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 21 OF 23 USPATFULL on STN
ACCESSION NUMBER: 80:46956 USPATFULL
TITLE: Fluorovitamin D compounds and processes for their preparation
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States
Schnoes, Heinrich K., Madison, WI, United States
Napoli, Jr., Joseph L., Madison, WI, United States

Onisko, Bruce L., Madison, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4224230		19800923	<--
APPLICATION INFO.:	US 1979-64208		19790806	(6)

RELATED APPLN. INFO.: Division of Ser. No. US 1978-928279, filed on 26 Jul 1978, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Roberts, Elbert L.
LEGAL REPRESENTATIVE: Bremer, Howard W.
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1
LINE COUNT: 949
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Fluorine-substituted vitamin D compounds, methods for preparation of such compounds and fluorinated intermediate compounds used in such methods are disclosed. The fluorine-substituted vitamin D compounds are characterized by vitamin D-like activity in stimulating intestinal calcium transport and **bone** mobilization and in promoting the calcification of rachitic **bone**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 22 OF 23 USPATFULL on STN
ACCESSION NUMBER: 80:19834 USPATFULL
TITLE: Novel 1α-hydroxy-24-oxovitamin D.sub.3, its preparing process and the novel precursors thereof
INVENTOR(S): Takeshita, Toru, Hino, Japan
Niki, Takao, Hino, Japan
Kawashima, Hiroyuki, Hino, Japan
Bannai, Kiyoshi, Hino, Japan
PATENT ASSIGNEE(S): Teijin Limited, Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4199577		19800422	<--
APPLICATION INFO.:	US 1978-939043		19780901	(5)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1977-106677	19770907

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Roberts, Elbert L.
LEGAL REPRESENTATIVE: Sughrue, Rothwell, Mion, Zinn and Macpeak
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 776
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel 1α,3β-dihydroxy-24-oxocholesta-5,7-diene and the hydroxyl group-protected derivatives thereof.

Said novel 1α-hydroxy-24-oxovitamin D.sub.3 and said novel intermediates are also useful as the intermediates of 1α,24-dihydroxyvitamin D.sub.3.

1α,3β-Dihydroxy-24-oxocholesta-5,7-diene and the hydroxyl group-protected derivatives thereof are prepared from fucosterol via 1α,3β-diprotected hydroxy-24(24)-ethylenedioxycholest-5-ene. 1α-hydroxy-24-oxovitamin D.sub.3 is prepared by irradiation with ultraviolet rays to 1α,3β-dihydroxy-24-oxocholesta-5,7-diene or a hydroxyl group-protected derivatives thereof, isomerization using heat energy, and, when necessary, elimination of the protecting groups.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 23 OF 23 USPATFULL on STN

ACCESSION NUMBER:	80:7944 USPATFULL
TITLE:	Fluorovitamin D compounds and processes for their preparation
INVENTOR(S):	DeLuca, Hector F., Madison, WI, United States Schnoes, Heinrich K., Madison, WI, United States Napoli, Jr., Joseph L., Madison, WI, United States Onisko, Bruce L., Madison, WI, United States
PATENT ASSIGNEE(S):	Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4188345		19800212	<--
APPLICATION INFO.:	US 1978-928279		19780726	(5)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Schwartz, Gerald A.
LEGAL REPRESENTATIVE:	Bremer, Howard W.
NUMBER OF CLAIMS:	5
EXEMPLARY CLAIM:	1
LINE COUNT:	973

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Fluorine-substituted vitamin D compounds, methods for preparation of such compounds and fluorinated intermediate compounds used in such methods are disclosed. The fluorine-substituted vitamin D compounds are characterized by vitamin D-like activity in stimulating intestinal calcium transport and **bone** mobilization and in promoting the calcification of rachitic **bone**.